

and extremities. The eruption resolves within weeks after delivery. A biopsy for direct immunofluorescence reveals linear IgM at the basement membrane zone. Some patients with a similar presentation may have circulating IgM antibodies detected on indirect immunofluorescence testing.

In summary, a number of eruptions occur during pregnancy that have characteristic clinical, histopathological, and laboratory findings. It is important for the clinician to be familiar with these, not only for treatment if it is necessary, but also in order to discuss with the patient the risk of recurrence in subsequent pregnancy and any risk to the fetus or newborn.

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Evaluation and Treatment of Onychomycosis

DISTAL SUBUNGUAL ONYCHOMYCOSIS, the most common type of nail fungus, may affect as much as 10–12% of the population. In the geriatric age group, this figure may reach as high as 50%. Since older persons are one of the fastest growing segments of our society, tinea unguium becomes a major health problem that causes disability and has a major serious impact on quality of life. Fortunately, in the last several years, 3 safe and effective oral antifungals have become available for use. The likelihood for a cure is good, but there is approximately a 15% recurrence rate.

Before starting therapy, it is essential that the diagnosis of onychomycosis be confirmed. Since fungal nail infections comprise only 50% of dystrophic nails, it follows logically that other conditions make up the 50% balance. Psoriasis, lichen planus, nail cosmetic sensitivity, and many other disorders also enter into the differential diagnosis. The most commonly used diagnostic tests are the traditional KOH wet mount and culture. If either one or both of these investigations is positive, the diagnosis is proved and therapy may be commenced. Since as much as 30% of these mycologic tests may be negative even in the presence of onychomycosis, two additional steps may become necessary. Histopathology of nail clippings with PAS staining is an effective and noninvasive method to identify fungi and is accurate well over 90% of the time with the possible exception of very early cases. In the latter situation, the nail plate has not yet been invaded by the fungi and, therefore, hyphae

may not be present but that is uncommon. Finally, if all else fails to provide a diagnosis, a nail bed biopsy could be performed which, if eliminating fungus as a causative factor, may then provide a specific diagnosis.

The 3 new oral antifungal agents that are currently available for the treatment of distal subungual onychomycosis are itraconazole (Sporanox), terbinafine (Lamisil), and fluconazole (Diflucan). These drugs are major breakthroughs for two reasons. First, all 3 reach the nail plate rapidly, within 7–21 days. The old standby, griseofulvin, requires 6 months to reach the distal plate of a finger and 12 months or more to reach the same site in a toe because matrix incorporation is required. The new drugs reach the nail quickly because they diffuse upward from the nail bed and do not require matrix incorporation. Second, whereas griseofulvin disappears from the nail as early as 2 weeks after treatment is stopped, the new ones remain active in the nail for several months after therapy is discontinued.

Itraconazole was the first product to be approved by the FDA. It is a triazole that is lipophilic, has high protein binding, and strong tissue affinity. Itraconazole may be given on a daily basis at 2 capsules (100 mg each) per day after meals for 2 months for fingernails and three months for toenails. The new “pulse” regimen may also be employed and has become a popular form of treatment. It requires 2 capsules twice daily for 1 week on and 3 weeks off. Two pulses are needed for fingernails and 3 for toenails. Drug interactions leading to adverse sequelae such as heart problems can occur with itraconazole, and the following are contraindicated: cisapride, simvastatin, lovastatin, astemizole, triazolam, and midazolam.

The second product to be approved by the FDA was terbinafine. It is an allyl amine that is also lipophilic. It is given in a dosage of one 250-mg tablet daily for 6 weeks for fingernails and 3 months for toenails. There are no contraindicated drug interactions because terbinafine does not interact with the cytochrome P450 system to the extent that azoles do.

The last of the triumvirate, fluconazole, has not yet been approved by the FDA for the treatment of onychomycosis, although it is available for some systemic fungal infections. It, like itraconazole, is a triazole but it is hydrophilic and not lipophilic. The dosage schedule is 150–300 mg once per week, that is, on an intermittent basis. The treatment duration varies but most cases require 5–7 months to clear toenails, at a cost of \$400–\$500. Fingernails require less time, and as a result treatment cost is also less. Fluconazole is available in 50-, 100-, and 200-mg tablets. It is impacted by the cytochrome P450 system and therefore has many drug interactions with which the treating physician must become familiar before prescribing. To date, none has been labeled as contraindicated.

Medical surveillance for patients undergoing treatment should include baseline complete blood count and liver function tests, which should be repeated approximately every 6 weeks.

In summary, we are now in a new era in the treatment of onychomycosis. It behooves the medical community to revisit this important, though fortunately not life threatening, disease that is much more than a cosmetic problem.

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Those whose advice may likely be sought, primary care physicians, need sufficient training themselves in identifying clinically suspicious lesions.

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Public Awareness of the Threat of Melanoma and Performance of Skin Self-Examination

THE DETECTION AND TREATMENT of melanoma early in its course is critical because survival in persons with early or thin melanoma (equal to or less than 0.75 mm) approaches 100% and falls to 55% for more advanced or thick tumors, greater than 3.00 mm. Skin self-examination for melanoma could enhance its early detection and could reduce mortality from melanoma by 63%. Currently, most melanomas are discovered by patients and their family members. Thus, regular skin self-examination or skin examination with the aid of a partner to see difficult areas, e.g. back of legs, back of head, can increase the number of patients who seek medical care early.

In the United States, melanoma incidence and mortality continue to rise each decade. The incidence of melanoma is estimated to be approximately 10 per 100,000, and this may be doubling worldwide every 10–15 years. The lifetime risk is estimated to be 1 in 600 for someone born in 1960 and 1 in 75 for someone born in the year 2000. While Scotland and Australia have experienced a reduction in melanoma mortality rates following broad public educational campaigns, the United States has not yet experienced such a decline. The recently enhanced public awareness of melanoma and acceptance of skin self-examination brings more worried patients into the offices of all physicians, thus increasing case finding by all health care professionals. The desired decline in US mortality rates could be attained by monthly skin self-examination performed by the at-risk population and proficiency of health care professionals in early detection of melanoma with referral of clinically suspicious cases to the dermatologist for biopsy and treatment. All health care professionals should become proficient in identifying those at high risk of developing a melanoma, informing patients of their individual risk, and counseling patients about how to perform skin self-examination using the ABCD rule (Asymmetry of the shape of the mole, Border irregularity, Color variation over the surface of the mole, and Diameter greater than 6 mm).

HIV Related Skin Diseases Clear with Combination Therapy

FROM THE BEGINNING of the AIDS epidemic in 1981, the skin was observed to be a key barometer of immunodeficiency. Diseases such as seborrheic dermatitis and onychomycosis appear with modest drops in the CD4 count. Kaposi's sarcoma, oral candidiasis and herpes zoster appear with progressive loss of CD4 cells and, finally, oral hairy leukoplakia, molluscum contagiosum, eosinophilic folliculitis and resistant herpes simplex are seen with profound levels of immunodeficiency.

The association of herpes zoster, oral candidiasis, oral hairy leukoplakia and molluscum contagiosum is so profound that these cutaneous conditions were used as signs of disease progression in early clinical trials of antiviral medications. Although they are not as precise as the CD4 count in measuring the level of immunodeficiency and are certainly not as useful as the viral load in measuring the rate of disease progression, they are of great value in underdeveloped countries where expensive laboratory tests are not available.

Furthermore, these conditions are so strongly tied to HIV infection that there have now been a number of lawsuits filed against physicians who diagnosed herpes zoster in young people and did not discuss with them the wisdom of having an HIV test performed.

The introduction of combined antiretroviral therapy showed that if the physician was successful in getting the patient's viral load below the level of detection, the patient's disease did not progress, the CD4 count began to rise, and his or her general well-being improved. At the same time, patients with Kaposi's sarcoma showed almost immediate arrest in the rate of progression of their disease with ongoing improvement if the viral load remained below the level of detection. Eosinophilic folliculitis may initially flare with aggressive therapy, but also clears as the CD4 count rises above 100. Molluscum contagiosum becomes easily manageable and candida and oral hairy leukoplakia clear.

Thus in this second phase of the AIDS epidemic, the treatment of choice for most HIV associated skin diseases, including Kaposi's sarcoma, is aggressive antiretroviral